

MASTER ELECTRICIAN

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DEPARTMENT: County Administration/Facilities Management

NATURE OF WORK:

Performs skilled electrical work including the installation, maintenance, and repair work on electrical wiring systems, controls, and machinery in all county facilities.

Work is performed under the general supervision of the Building Maintenance Superintendent.

ESSENTIAL FUNCTIONS OF THE JOB:

Plans (to include cost estimates), designs, and installs electrical layout for minor construction and renovation projects for county building structures and facilities.

Locates and determines electrical malfunction, using test instruments, such as ohmmeter and test lamp; repairs malfunction by such methods as replacing burnt out elements and fuses, bypassing or replacing defective wiring, filing switch contact points, and cleaning or rewiring motors, using hand tools; tests electrical equipment, such as generators and heaters for safety and efficiency, using standard test equipment, and by observing functioning.

Installs electrical conduit, using such tools as hacksaw, pipe threader, and conduit bender; connects wiring to lighting fixtures and power equipment; installs control distribution apparatus, such as switches, relays, and circuit breaker panels; connects power cables to equipment and installs grounding leads.

Tests continuity of circuit to ensure electrical compatibility and safety of all components, using standard instruments, such as ohmmeter, battery, and buzzer and oscilloscope; observes functioning of installed equipment or system to detect hazards and need for adjustments; relocation, or replacement; repairs faulty equipment or systems; inspects circuits and wiring for specified shielding and grounding and repairs or rewires system according to building codes and safety regulations.

Works with bucket truck for parking lot and ball field high voltage lighting.

Performs emergency work on HVAC and electrical systems.

Brings all existing electrical systems up to code standards.

Supervises work of electrical assistant and others as necessary.

Performs work safely in accordance with departmental safety procedures and the County Safety Program. Operates equipment safely and reports any unsafe work condition or practice to supervisor.

Performs related work as required.

JOB LOCATION AND EQUIPMENT OPERATED

Duties are performed at various County facilities.

Requires lifting, climbing, and working at varied heights.

Operates various tools.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Thorough knowledge of the provisions of the national and local electrical codes.

Thorough knowledge of the safe and effective use of hand and power tools and other equipment of the electrical trade.

Thorough knowledge of connecting, wiring, and devices used in the conduction of electricity.

Ability to diagnose and correct electrical power, lighting, or communication failures.

Ability to read wiring diagrams and schematics.

Ability to establish and maintain harmonious working relationships.

Ability to deal efficiently and courteously with the public.

Ability to follow oral and written instructions.

MINIMUM QUALIFICATIONS:

High school diploma or equivalent; and extensive work experience in the electrical trades; or any equivalent combination of acceptable education and experience providing the knowledge, abilities, and skills cited above.

NECESSARY SPECIAL QUALIFICATIONS:

Possession of a valid Virginia driver's license and a record that meets James City County criteria.

Possession of or ability to obtain a Master Electrician Certification within ____ months of employment.